

CLAIMS

1. A hybrid vehicle comprising an engine (1), a transmission (2) which changes a speed of a rotation of an input shaft and transmits the rotation to an output shaft, a motor generator (4), a power transmission mechanism (5) which connects a rotary shaft of the motor generator (4) and the input shaft of the transmission (2), a storage device (9) which is connected to the motor generator (4), and a controller (10),

characterized in that the controller (10) sets an engine torque at a point on an engine torque high efficiency line at a current engine rotation speed as a target engine torque,

calculates a current engine torque from the current engine rotation speed and a current accelerator depression amount, and

when a gear position of the transmission (2) is neutral, the vehicle is stationary, and the storage device (9) requires charging, sets a difference between the target engine torque and the current engine torque as a target power generation torque of the motor generator (4), and controls the motor generator (4) such that a power generation torque of the motor generator (4) matches the target power generation torque.

2. The hybrid vehicle as defined in Claim 1, characterized in that the controller (10) sets a transitional time period corresponding to the target power generation torque, and controls the motor generator (4) over the transitional time period to raise the power generation torque to the target power generation torque.

3. The hybrid vehicle as defined in Claim 1 or 2, characterized in that

the controller (10) halts an operation of the engine (1) when the gear position of the transmission (4) is neutral, the vehicle is stationary, and the storage device (9) does not require charging.

4. A control method for a hybrid vehicle comprising an engine (1), a transmission (2) which changes a speed of a rotation of an input shaft and transmits the rotation to an output shaft, a motor generator (4), a power transmission mechanism (5) which connects a rotary shaft of the motor generator (4) and the input shaft of the transmission (2), and a storage device (9) which is connected to the motor generator (4), characterized in that the control method comprises:

setting an engine torque at a point on an engine torque high efficiency line at a current engine rotation speed as a target engine torque,

calculating a current engine torque from the current engine rotation speed and a current accelerator depression amount, and

when a gear position of the transmission (2) is neutral, the vehicle is stationary, and the storage device (9) requires charging, setting a difference between the target engine torque and the current engine torque as a target power generation torque of the motor generator (4), and controlling the motor generator (4) such that a power generation torque of the motor generator (4) matches the target power generation torque.